

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Revision of the Commission's Rules	)	CC Docket No. 94-102
To Ensure Compatibility with	)	
Enhanced 911 Emergency Calling Systems	)	
	)	

**Farmers Mutual Cooperative Telephone Company Petition for Limited Waiver  
of Sections 20.18(e) and (g) of the Commission's Rules**

Farmers Mutual Cooperative Telephone Company ("Farmers"), by its attorneys and pursuant to Sections 1.3 and 1.925 of the Rules and Regulations of the Federal Communications Commission ("FCC" or "Commission"),<sup>1</sup> hereby requests a limited and temporary waiver of Sections 20.18(e) and (g) of the Commission's rules.<sup>2</sup> Farmers is fully committed to providing E911 location capability to meet the emergency needs of its customers and continues to devote substantial resources and personnel to its pursuit of Phase II E911 ("Phase II") compliance. However, deployment of Phase II capability has been particularly difficult for Farmers due to obstacles it has faced in its attempts to obtain the Phase II handset, cell site, network signaling, switching and location equipment, and software upgrades necessary to make Phase II a reality prior to the Commission's October 1, 2001 deadline. Specifically, vendor delays in the availability of Phase II compliant network solutions and Phase II capable handsets have made compliance with Section 20.18(g)(1)(i) impossible to date, and make such compliance by October 2001 in Farmer's service area improbable if not impossible. Without the general

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<sup>1</sup> 47 C.F.R. §§ 1.3 and 1.925.

<sup>2</sup> 47 C.F.R. §§ 20.18(e) and (g).

availability of Phase II equipment, Farmers will be unable to meet the October 1, 2001 deadline in its service area and respectfully requests an extension as outlined below.

**I. Farmers Is Unable to Meet the FCC's October 1 Handset Availability Deadline Due to Factors Outside of Its Control**

Farmers is a small, broadband PCS carrier providing service in rural Idaho (BTA050 in Boise, Idaho). Farmers has been working diligently with its main supplier, Nortel, to develop a Phase II solution for its service area. Farmers is pursuing a handset solution for its CDMA operation using Global Positioning System ("GPS") technology. Farmers' Phase II solution will require a new software load in its Nortel switch, hardware upgrades, and automatic location information ("ALI")-capable handsets. As discussed in detail below, vendor-associated delays in delivery of each of these elements will prevent Farmers from meeting its relevant Phase II deadlines in its service area.<sup>3</sup>

Farmers will order an upgrade to its software in the form of the Nortel MTX10 feature addition when it is available<sup>4</sup> and will add location center hardware in order to transmit Phase II data to PSAPs. Nortel has discontinued Farmers' DMS100W switch, which is both a landline and wireless combination switch. As a result, Nortel must split the switch into separate landline and wireless switches and provide new hardware in order to provide Phase II capability. Nortel has promised this upgrade with the MTX10 software by Q2 of 2002. Regardless of the date such equipment is ultimately made available to Farmers, absent unexpected advances in Nortel's schedule, Farmers does not anticipate having the ability to process Phase II data until after the October 1, 2001 deadline.

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<sup>3</sup> As of September 14, 2001, Farmers had yet to receive either a Phase I or Phase II PSAP request.

<sup>4</sup> At this time, Nortel is not accepting orders for the MTX10 upgrade.

Farmers has investigated the potential product offerings of many different Phase II vendors in addition to Nortel, including those offered by Tendler, SCC Communications, Technocom Corporation, GTE Telecommunications Services, Cell-Loc, True Position, US Wireless, and SigmaOne Communications Corporation. Farmers has selected Nortel based on its network's compatibility with Nortel products and because the Nortel product appears to be the most robust solution available at the earliest date.

To meet the Commission's ALI requirements, Farmers also requires an upgrade to its hardware infrastructure in the form of its Nortel processor.<sup>5</sup> Based on Farmers' previous experiences, delays in the delivery of hardware can last up to nine months after such hardware first becomes available.<sup>6</sup> Additionally, several wireless carriers have reported in their Phase II waiver petitions that Nortel, Farmers' switch and network equipment vendor, will not have the necessary upgrades ready until the end of Q1 2002 or the beginning of Q2 2002.<sup>7</sup> After successful installation of the necessary equipment, Farmers will have to test all of the upgrades – a process that generally takes six to eight weeks.<sup>8</sup> With the unsated demand for Phase II technology building and the large nationwide carriers competing for equipment, Farmers does not realistically expect delivery of the necessary Phase II hardware until at least nine months

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<sup>5</sup> In general, the following hardware and software is needed to transmit Phase II data to PSAPs: IS41C – Dialed Number Trigger, E911 Software, MPC – Mobile Positioning Center, PDE – Position Determining Entity, and receivers at each cell site.

<sup>6</sup> Farmers' experiences are consistent with those of other carriers. *See, e.g.*, Inland Cellular Petition for Waiver at 6 (small carriers can expect to see generally available technology six to nine months after vendors deliver ALI-capable technology to the large, nationwide carriers). As Inland Cellular pointed out in its waiver petition, small carriers face “unique difficulties and obstacles” when attempting to contact national vendors. Inland Cellular Petition for Waiver at 1.

<sup>7</sup> *See, e.g.*, Qwest Petition for Waiver at 16.

<sup>8</sup> *Id.*

after the products first appear on the market.<sup>9</sup> In fact, even large carriers are reporting six-month lags between the availability of equipment and delivery, installation, and testing.<sup>10</sup>

While Farmers will be unable to process Phase II data without the Nortel upgrade, it is the unavailability of ALI-capable handsets that is causing the most serious delays to Farmers' Phase II compliance plans. Farmers plans to integrate the Nortel network upgrades with ALI-capable handsets. Unfortunately, as discussed below, Farmers' Phase II upgrade efforts have been stymied by a general lack of availability of ALI-capable handsets.

As a small carrier without substantial market clout with vendors, Farmers is forced, in many cases, to base its handset plans on second-hand information on product delivery dates and details of what products will be available for purchase. Even Western Wireless, a huge rural carrier in comparison with Farmers, notes that it "does not have the clout to dictate the production of new handsets with [ALI] capability."<sup>11</sup> This process makes it difficult for Farmers to accurately predict the date when it can begin selling ALI-capable handsets to its customers. Notwithstanding the lack of vendor-supplied information regarding handset availability dates, information provided by large carriers in their waiver requests suggests that the earliest date by which ALI-capable handsets will be commercially available is December 1, 2001.<sup>12</sup> The December 2001 date is consistent with information that Farmers has obtained from vendors and record sources. Farmers understands that the only manufacturer of currently available CDMA ALI-capable chipsets is QUALCOMM, and that Nokia is not far behind with its own proprietary CDMA technology. However, most handset manufacturers using the QUALCOMM chipsets,

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<sup>9</sup> See, e.g., Inland Cellular Petition for Waiver at 6.

<sup>10</sup> See, e.g., Cingular Petition for Waiver at 27.

<sup>11</sup> See Western Wireless Petition for Waiver at 12.

<sup>12</sup> See Verizon Wireless Petition for Waiver at 14 (December 2001); see also U.S. Cellular Corporation Petition for Waiver at 13 (4<sup>th</sup> Quarter 2001).

with the notable exception of Samsung, have not incorporated an ALI-capable QUALCOMM chipset into their phones. Unfortunately, the Samsung product with the ALI-capable QUALCOMM chipset requires a minimum order volume that Farmers, as an extremely small carrier, cannot meet.<sup>13</sup> Farmers is considering CDMA handsets from Motorola (scheduled to be first available in September 2002), Kyocera (March 2002),<sup>14</sup> and Nokia (December 2002),<sup>15</sup> and intends to purchase the first set of handsets that works with the Farmers network that becomes available. Like many ALI technology vendors, Tendler has noted that it would be delighted to sell its ALI technology if it were readily available. Unfortunately, not only is the Tendler handset solution unavailable at this time, but large carriers are placing orders, pushing small carriers such as Farmers to the back of the line. Even if Tendler were able to commit to a general availability date for its equipment, the economic incentive for Tendler to fill 500,000 Verizon orders rather than a few thousand for Farmers will most certainly lead to additional delays beyond any such date. Farmers, based on its experiences and confirmed by other small carriers,<sup>16</sup> expects a six to nine month delay after vendors first deliver ALI-capable handset technology to the large, nationwide carriers before such equipment is made available to Farmers.

In addition to the Samsung product, Farmers is aware of one other handset solution that may be commercially available. According to Airbiquity's testimony to Congress, its ALI product is commercially available. Farmers has investigated the Airbiquity solution, and has ruled it out based on its cumbersome technical attributes. First, the Airbiquity product appears to

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<sup>13</sup> See, e.g., ALLTEL Petition for Waiver at 14-15.

<sup>14</sup> Farmers has had great success with Kyocera products and Kyocera customer service personnel. Farmers has had a series of meetings with Kyocera, and at a July 25, 2001 meeting, Kyocera indicated that it hoped to have its ALI-capable phone with the QUALCOMM 5100 chip commercially available by the end of the first quarter of 2002.

<sup>15</sup> Farmers has experienced major technical problems with Nokia's current dual-mode phones and has discontinued selling Nokia products for the time being.

<sup>16</sup> See, e.g., Inland Cellular Petition for Waiver at 6.

be capable of working only with certain model Nokia products – products that Farmers will most likely discontinue as it acquires new CDMA handsets. Second, the Airbiquity product is essentially a stand-alone GPS product that is about the same size as, and the same cost as, a regular handset that is attached/jerry-rigged to the Nokia product. Third, Airbiquity’s solution uses exposed contacts on the bottom of the Nokia phone that will not work should Nokia alter the design of its product. Since sleek, consumer-friendly handsets will be available soon after Farmers upgrades the network, software, and hardware components of its Nortel network, the outmoded Airbiquity product is not a practical solution.

Farmers, like many carriers that serve rural areas, has ruled out a network-based Phase II solution.<sup>17</sup> Farmers’ investigation of network-based solutions has confirmed that triangulation-based location solutions do not work well in less densely populated rural areas, where cell sites are scarce. In fact, the Commission has confirmed the “distinct challenges” that rural carriers such as Farmers face in implementing Phase II requirements.<sup>18</sup> Farmers must rely heavily on ALI-capable handsets to meet the FCC’s Phase II accuracy standards. In the Farmers network, an E911 caller is not always within the range of multiple cells. In addition, many of Farmers’ cell sites are spaced in straight lines (by roadways, for example), making triangulation a geometric impossibility.<sup>19</sup> Farmers will continue to work with Nortel on its solution, but cannot achieve full Phase II compliance in its service area without ALI-capable handsets.

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<sup>17</sup> See, e.g., Verizon Wireless Petition for Waiver at 33.

<sup>18</sup> See, e.g., *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Fifth Memorandum Opinion and Order, 15 FCC Rcd. 22810, ¶ 21 (2000) (“*Fifth MO&O*”).

<sup>19</sup> See, generally, *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Third Report and Order, 14 FCC Rcd. 17388, ¶ 23 (1999) (“*Third R&O*”).

## II. Farmers Satisfies the Relevant Standards for Waiver of the Commission's Rules

Under Section 1.3 of its rules, the Commission may waive any provision of its rules if good cause is shown.<sup>20</sup> The Commission must take a “hard look”<sup>21</sup> and then decide if such a waiver is in the public interest.<sup>22</sup> The Commission has already recognized that wireless carriers may face difficulties in meeting the October 1, 2001 deadline to comply with Sections 20.18 (e) and (g) of its rules. In the FCC’s *Fourth Memorandum Opinion and Order* (“*Fourth MO&O*”), the Commission recognized that there would be instances when “technology-related issues” or “exceptional circumstances” would cause a delay in a wireless carrier’s ability to meet the October 1, 2001 deadline to become Phase II compliant.<sup>23</sup> Such recognition is consistent with the Commission’s acknowledgement that “bringing a new product to market requires manufacturers to undertake a time-consuming series of complex steps.”<sup>24</sup> Manufacturers, although racing to meet carrier demand, have yet to overcome the technological complexities in order to make ALI-capable handsets available in time for carriers to meet the FCC’s deadlines. The requested waiver is consistent with the Commission’s recognition that compliance deadlines should be linked to the availability of manufacturer equipment.<sup>25</sup>

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<sup>20</sup> 47 C.F.R. § 1.3.

<sup>21</sup> *Wait Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969).

<sup>22</sup> *Northeast Cellular Telephone Company, L.P., et al v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

<sup>23</sup> *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, *Fourth Memorandum Opinion and Order*, 15 FCC Rcd. 17442 at ¶ 43 (2000) (“*Fourth MO&O*”).

<sup>24</sup> GARMIN International, Inc., *Order on Reconsideration*, DA 01-851 at ¶ 5.

<sup>25</sup> *See, e.g., Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992; Compatibility Between Cable Systems and Consumer Electronics Equipment*, 9 FCC Rcd. 1981 ¶¶ 76-77 (1994) (modifying a proposed compliance deadline to account for the unavailability of necessary equipment).

The Commission also indicated that a petition for waiver must be “specific, focused and limited in scope, and with a clear path to full compliance.”<sup>26</sup> Farmers’ waiver petition is specific, narrow in scope, and provides the Commission with Farmers’ efforts and future plans to satisfy the FCC’s Phase II requirements. Moreover, as set forth below, the instant petition satisfies the applicable waiver standards.

Section 1.925(b)(3) of the Commission’s rules sets out the general standards for determining when a waiver should be granted in Wireless Telecommunications Bureau proceedings:

The Commission may grant a request for waiver if it is shown that:

- (i) The underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or
- (ii) In view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.<sup>27</sup>

Under both of these standards, grant of the requested waiver is warranted. Application of the Section 20.18(g) handset deadline to Farmers would be inequitable in light of the lack of availability of ALI-capable handsets, a factor outside of Farmers’ control. The unavailability of such handsets, combined with the technical incompatibility of a network-based solution in its service area, leaves Farmers with no reasonable alternative but to seek a waiver.

Grant of the requested waiver is consistent with both the public interest and the underlying purpose of the Commission’s Phase II rules in Section 20.18. The Commission’s extension of the original March 1, 2001 implementation date to October 1, 2001 balanced the

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<sup>26</sup> *Fourth MO&O* at ¶ 44.

<sup>27</sup> 47 C.F.R. § 1.925(b)(3).



need for an expeditious rollout of Phase II services with the Commission's recognition that Phase II chip manufacturers such as QUALCOMM had been experiencing delays, making compliance by the original deadline infeasible.<sup>28</sup> In setting the October 1 deadline, the FCC relied on the anticipated availability of the necessary equipment. As discussed herein, it is now clear that the handset equipment required to meet the October 1 deadline will not be available in time to allow Farmers to meet this deadline. A temporary limited waiver of Section 20.18(g)(1)(i) is entirely consistent with the underlying purpose of the establishment of the October 1 deadline.

### **III. Schedule for Compliance**

Farmers requests a waiver, based upon the following timetable, of the FCC's October 1, 2001 deadline to "begin selling and activating" handsets and the Commission's related benchmark deadlines contained in Section 20.18(g). Farmers' schedule is based on its experiences and meetings with vendors and publicly available information regarding handset availability. Based upon its own inquiries and confirmed in other carriers' waiver requests, Farmers believes the earliest and most optimistic date by which the large, nationwide carriers will see delivery of ALI-capable handsets is by March 2002.<sup>29</sup> Accounting for expected delays before CDMA handsets reach a small carrier such as Farmers and necessary testing,<sup>30</sup> Farmers does not expect to be capable of selling and activating handsets prior to October 2002. While Farmers hopes to begin selling and activating handsets prior to October 2002, Farmers has no

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<sup>28</sup> *Fourth MO&O* at ¶ 33.

<sup>29</sup> The March estimate is based upon what Kyocera has told Farmers. Other carriers have reported a June availability date for the Kyocera product.

<sup>30</sup> Farmers notes that testing typically takes approximately six weeks. Without the necessary time to fully test a solution, or without the proper technology for Farmers' rural region, Farmers' Phase II solution could fail, undermining public confidence in wireless E911. Farmers does not want to offer the sense of security that the offering of Phase II location technology will ultimately provide until it has a proven system. A rushed and inoperable system will not benefit the public.

firm basis to believe that it will have the necessary handsets prior to this date. Accordingly, Farmers requests that the deadline for Farmers to begin selling and activating handsets be extended to October 1, 2002, the 25 percent benchmark be extended until December 31, 2002, that the 50 percent benchmark be extended until June 30, 2003, and that the 100 percent benchmark be extended until December 31, 2003. Farmers also requests that the 95 percent penetration rate deadline be extended until December 31, 2006.

#### **IV. Conclusion**

Based on the foregoing, Farmers respectfully requests that the Commission grant Farmers a temporary waiver of Sections 20.18(e) and (g) of its rules and permit Farmers to implement its Phase II solution based on the schedule set forth herein.

Respectfully submitted,

**FARMERS MUTUAL COOPERATIVE  
TELEPHONE COMPANY**

By:\_\_\_\_\_/s/\_\_\_\_\_

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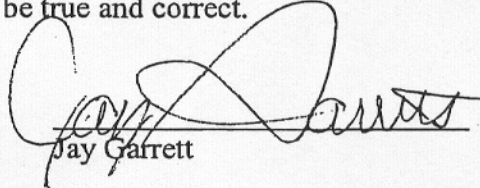
Its Attorneys

Dated: September 20, 2001

### DECLARATION OF JAY GARRETT

I, Jay Garrett, do hereby declare under penalty of perjury the following:

1. I am the General Manager of Farmers Mutual Cooperative Telephone Company.
2. I have read the foregoing "Petition for Limited Waiver of Sections 20.18(e) and (g) of the Commission's Rules." I have personal knowledge of the facts set forth therein, and believe them to be true and correct.

  
Jay Garrett

September 20, 2001

Date

## **CERTIFICATE OF SERVICE**

I, Joy Barksdale, do hereby certify that on this 20<sup>th</sup> day of September 2001, a copy of the foregoing Petition for Limited Waiver of Sections 20.18(e) and (g) of the Commission's Rules was served by hand delivery to the following parties:

\_\_\_\_\_/s/\_\_\_\_\_  
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